



A Digital Case Study
DMA #29 Raleigh-Durham:

***Local Coverage
Expanded,
Plus***

More HD Programming

Background Facts WRAL-DT and WRAZ-DT

Licensee:	Capitol Broadcasting Company, Inc.	
Affiliation:	WRAL-DT	CBS
	WRAZ-DT	FOX
Digital Sign-On:	WRAL-DT	July 1996
	WRAZ-DT	May 2000
Digital Off-Air Channel:	WRAL-DT	53 <i>(WRAL-HD experimental license – Channel 32)</i>
	WRAZ-DT	50

Key Milestones:

Stage One: A Focus on Technical Achievements

July 23, 1996	WRAL-HD Transmits Nation's First Commercial HD Signal <i>(34 days after receiving its experimental license)</i>
Mid-1996-1997	Conducts Technical Tests, Compiling Volumes of Data for Itself and the FCC Advocates 8-VSB and 1080i Standards
September 1997	Airs Live Atlantic Coast Conference Football Game in HD, Using a Borrowed HD Production Truck <i>(first live HD satellite uplink)</i> Tapes and Airs Local Pops Concert in HD Tapes and Airs Minor League Baseball Game in HD Founds HD Consortium, Now Administered through NAPTE
October 1998	Airs First Live News Event – A 70-Minute Broadcast of John Glenn's Return to Space Produces Other Local Programming in HD, including Several Documentaries

December 1998	Begins Construction of 1,989 Foot Digital Tower <i>(now home to six TV stations – WRAL-DT, WRAZ-DT, WNCN-DT (NBC), WNCN-TV (NBC), WLFL-DT (WB), WRDC-DT (UPN))</i>
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Stage Two: Network and Local HD Programming Ramps Up

1999	WRAL-HD Increases Local HD Programming
September 1999	WRAL-HD Participates in Network Firsts Thanks to CBS <ul style="list-style-type: none"> • First NFL Game in HD • First Prime-Time Series in HD • First News Magazine in HD
October 1999	Time Warner Begins Carriage of WRAL-HD
December 1999	Unveils Local Mobile HD Production Truck Produces First Live College Basketball Game in HD
March 2000	Multicasts Four NCAA Basketball Games in 19.4 Signal <i>(giving WRAL and its viewers a new appreciation for the flexibility offered by digital multicasting)</i>
July-August 2000	Airs First Gavel-to-Gavel Coverage of Republican and Democratic National Political Conventions in HD
March 23, 2000	WRAL-DT at Channel 53 Begins Operation
May 1, 2000	WRAZ-DT Launches Time-Warner Begins Carriage of WRAZ-DT
October 13, 2000	WRAL-DT Becomes First TV Station In the World to Produce and Air an All-HD Newscast, including Graphics, Live Shots, and News Stories <i>(broadcast live from the stage of the North Carolina State Fair)</i>

Stage Three: All HD Newscast, WRAL NewsChannel, and the Weather Center Debut

2001	WRAL-DT Completes Construction of its All-HD Newsroom
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WRAL-DT and WRAZ-DT Combine to Air Over 6 Hours of HD News Per Weekday

Begins Producing Most Public Affairs and Children's Programs in HD

Debuts WRAL NewsChannel, a 24-Hour Local News Channel for Raleigh-Durham

Debuts DTVPlus Offering On-Demand Content via a Data Stream to Properly Equipped Personal Computers

2002

WRAZ-TV, in cooperation with Time Warner Cable, Produces and Airs 10 Carolina Hurricanes (NHL) Games in HD

WRAZ-TV Airl Numerous Durham Bulls (minor league baseball) Games in SD

WRAL-DT and WRAZ-DT Convert All Production to Digital

2003

Launches Local 24-Hour Weather Center on WRAZ-DT

WRAZ-DT Launches HDNet from 9 a.m. to 5 p.m. to Increase HD Programming Available in the Market

WRAZ-DT Airl 58 Durham Bulls Games in SD

WRAZ-DT, again in cooperation with Time Warner, Announces Plans to Broadcast 14 Carolina Hurricanes Games in HD

Cable Carriage:

Full 19.4 of WRAL-DT and WRAZ-DT Carried, Minus Data

A Commitment to HD and Multicasting:

From day one, WRAL-DT and WRAZ-DT recognized the importance of HD programming to the preservation of free over-the-air broadcasting, by providing viewers with a superior video and audio experience, by keeping local broadcast signals technologically competitive with cable's and satellite's digital signals, and by encouraging programmers to continue to offer broadcast television the rights to key national events, such as the Super Bowl.

As a result and as a CBS local affiliate, WRAL-DT's first commitment was **and is** to HD programming. WRAL-DT initially planned to dedicate its entire 19.4 Mbps to a single HD signal, but with the advancement of technology, WRAL-DT's strategy shifted to multicasting, as evidenced in the milestones section. Utilizing advanced compression technology and statistical multiplexing, WRAL-DT now offers its viewers an HD channel, a full-time local news channel in standard-definition, and enhanced on-demand local content via a data stream.

In addition to its FOX widescreen programming, WRAZ-DT offers viewers in the Raleigh-Durham market a local weather channel. Recognizing the need to deliver more HD programming to the market, WRAZ-DT recently added HDNet from 9 to 5.

Why the commitment to multicasting?

A simple answer – Expanded local coverage . . . viewers in Raleigh-Durham now have a 24 hour local news channel and a 24 hour local weather center that they would not have without multicasting, as well as CBS and FOX network programming.

WRAL NewsChannel offers full-coverage of many events not previously possible, such as North Carolina General Assembly hearings and committee meetings, local election coverage, live coverage of local high-profile trials, press conferences, and even the recent FCC hearings in Durham and Charlotte. WRAL NewsChannel also allows viewers more opportunities to view WRAL's regular newscasts and public affairs programs. WRAL NewsChannel even airs Carolina Week, a public affairs program produced by students at the University of North Carolina at Chapel Hill School of Journalism and Mass Communications.

Multicasting also gives us flexibility to provide additional information when national events happen. For example, when the shuttle disaster occurred, WRAL NewsChannel switched to NASA TV after network programming switched to sports. Designed to utilize low bit rates, the NewsChannel's video is flanked on the right with local news headlines and on the bottom with weather and stock information.

Through multicasting, WRAZ-DT can also offer HD programming during the day with HDNet, Carolina Hurricanes games, and local minor league baseball, all while still broadcasting FOX network programming.

The result:

Multicasting allows WRAL-DT and WRAZ-DT to provide our local marketplace with **more** HD programming and **expanded** local coverage of news, sports, weather and public affairs programming.